

**REMARKS**

Claims 32-38, 41, 43-45, 48, 50-56, 58-61, 63-66 and 68-71 are pending in the application. In the Office Action, the Examiner rejected claims 32-38, 41, 43-45, 48, 50-56, 58-61, 63-66 and 68-71 under 35 U.S.C. §112, second paragraph. A provisional non-statutory double patenting rejection is set forth. The specification is objected to.

Applicants appreciate the telephone interview generously granted by the Examiner on March 30, 2011, at which Examiner Bruce Snow and Applicant's Representative Barbara Daniels were present. The §112 rejection of the claims was discussed, as was alternate terminology for some of the claim language. The Examiner requested that consistent terminology be used throughout the independent claims to represent similar claimed features (for example, consistent first and second bearing surfaces). The Examiner also requested that a diagram labeling such features be included in the reply to the Office Action. The term 'constantly sloped' was discussed, and it was agreed that 'having a constant slope' would be an appropriate substitution. The term 'individual projections' was discussed, and it was agreed that 'arms' for such structure would be an appropriate substitution, and that an amendment to the specification setting forth the arms shown in Figures 29 and 30 would be considered.

By this paper, Applicants have addressed all the objections and rejections set forth by the Examiner in the Office Action. Without conceding that the Examiner has set forth a *prima facie* case of indefiniteness for each claim, independent claims 32, 41, 51 and 58 have been amended to more particularly point out and distinctly claim the subject matter. Dependent claims 35-38, 43-45, 48, 52, 63 and 66 have also been amended to maintain antecedence relative to the amended independent claims. Dependent claims 53 and 59 are canceled herein, and new dependent claims 72 and 73 are added. An amendment to the specification is presented herewith.

For at least the following reasons, claims 32-38, 41, 43-45, 48, 50-52, 54-56, 58, 60-61, 63-66 and 68-73 are believed to be in a condition for allowance.

## DOUBLE PATENTING

Applicants note the provisional nonstatutory double patenting rejection of claims 32-38, 41, 43-45, 48, 50-56, 58-61, 63-66 and 68-71 as being unpatentable over all claims of copending Application no. 11/559,215. At such time as claims in either application are patented, the rejection will be addressed.

## OBJECTION TO THE SPECIFICATION

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter, specifically for the terms constantly sloped, articulating structure, first and second articulating surfaces, third and fourth articulating surfaces, first straight section, and pair of individual projections.

Regarding the term ‘constantly sloped section’, claim 32 has been amended to substitute the phrase ‘an angled section, the angled section having a constant slope from anterior to posterior’, as discussed in the interview. This amendment is more specific, and finds support in the specification in paragraphs [0122-0123] and Figures 25 and 31.

Regarding the term ‘articulating structure’, claims 32 and 37 have been amended to longer include that term. Withdrawal of the objection is respectfully requested.

Regarding the terms ‘articulating surface’ or ‘articular surface’, these terms have herein been replaced by ‘bearing surface’ in claims 32, 35-38, 41, 43-45, 48, 51, 52, 58 and 63. The term bearing surface finds support in the specification in paragraphs [0033], [0091], and the originally filed claims.

Regarding the language of ‘first straight section’, Applicant points out that this language was discussed in an interview regarding this case on April 28, 2010 and summarized in the Reply to Office Action dated June 14, 2010. The interview included a discussion of the flat or flattened section 150, as found in paragraphs [0121-0123] and Figures 25-26. During the interview, it was agreed that the language ‘straight section’ would be an appropriate substitute for ‘flat section’. The term ‘straight section’ has since been included in claim language and amendments dated June 14, 2010 and December 6, 2010.

Regarding the term ‘pair of individual projections’, claim 58 has been amended to substitute the term ‘pair of arms’, as discussed in the interview. An amendment to the specification is submitted herein to provide written description of the pair of arms, in accordance with MPEP 2163.06. This amendment does not constitute new matter, as the pair of arms is already disclosed in at least Figures 25, 29, 30, and 31.

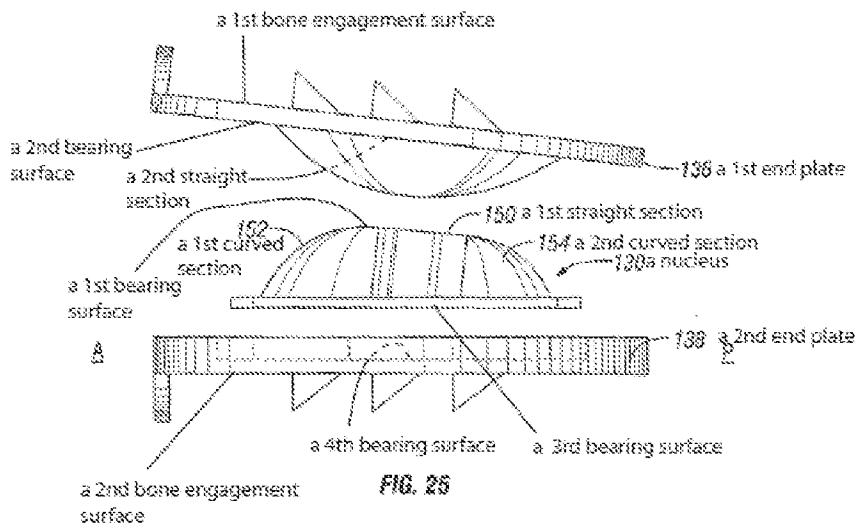
All of the objections to the specification raised in the Office Action have been addressed as set forth above, and withdrawal of the objection is requested.

#### CLAIM REJECTIONS – 35 U.S.C. §112

Claims 32-38, 41, 43-45, 48, 50-56, 58-61, 63-66 and 68-71 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. By this paper, claims 53 and 59 have been canceled, and claims 32-33, 35-38, 41, 43-45, 51-52, 58, and 63-66 have been amended to address the rejection.

Regarding claim 32 and throughout the claims, the terms ‘articulating surface’ and ‘articular surface’ have been replaced with the term ‘bearing surface’. The term ‘bearing surface’ finds support in the specification in paragraphs [0033], [0091], and the originally filed claims. Further, the bearing surfaces (first bearing surface, second bearing surface, etc.) have been renumbered so that they are consistent throughout the claims, as requested by the Examiner.

Also as requested by the Examiner, a diagram of some example claim elements is presented below. For the purposes of responding to the Examiner’s request, Applicant provides only one interpretation of the claims, and only one labeled example of each structure related to the claims as currently amended. It is not intended to import the remaining structure into the claims. Thus, the claims as presently written are not limited to the diagram below.



Regarding the term 'articulating structure' in claims 32 and 37, the term has been deleted from the claims.

Regarding the term 'constantly sloped' in claim 32, this claim has been amended as discussed in the interview. The phrase 'an angled section, the angled section having a constant slope from anterior to posterior' has been added in place of the phrase 'constantly sloped section'. The amended terminology is more specific, and finds support in the specification in paragraphs [0122-0123] and Figures 25 and 31. As can be seen in Figures 25 and 31, a section (150) of the upper bearing surface of the nucleus (130) is angled, and has a constant, or unchanging, slope from anterior to posterior. Claims 33, 64, and 65 have been amended to maintain antecedent basis with claim 32, from which they depend.

Regarding the rejection of claim 41, the requested diagram is presented above. The second articular element (now amended to second bearing surface) is claimed consistently in all independent claims.

Regarding claim 58, the claim language 'in at least one cross section' has been deleted. The 'plurality of bone engagement features' is different than 'a pair of individual projections'. The bone engagement features may be seen projecting outwardly from each end plate 136, 138 in Figures 25, 30, and 31. The 'pair of individual projections' referred to in the claim has been amended to a 'pair of arms'. The amendment to the specification, as discussed above, provides support for the pair of arms, as do Figures 29 and 30.

All of the rejections under §112, second paragraph, have been addressed. Withdrawal of the rejection is requested.

**CONCLUSION**

By this paper, Applicants have made an earnest attempt to place this case in condition for allowance. Other than as explicitly set forth above, this reply does not include acquiescence to statements, assertions, assumptions, conclusions, or any combination thereof in the Office Action. For the foregoing reasons and for other reasons clearly apparent, Applicants assert that claims 32-38, 41, 43-45, 48, 50-52, 54-56, 58, 60-61, 63-66, and 68-73 are in condition for allowance. If there are any remaining issues preventing mailing of a Notice of Allowance, the Examiner is respectfully requested to contact the undersigned.

Dated this 6<sup>th</sup> day of April 2011.

Respectfully submitted,

/Barbara Daniels/

---

Barbara Daniels  
Agent for Applicants  
Registration No. 60,467

MedicineLodge, Inc. dba IMDS Co-Innovation  
124 South 600 West  
Logan, UT 84321  
Telephone: (435)774-1868  
Facsimile: (435)753-7698